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09/759,543	01/12/2001	Walter Horburger	HF-54	1176

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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 09/21/2004

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/759,543  
Filing Date: January 12, 2001  
Appellant(s): HORBURGER ET AL.

**MAILED**  
SEP 2 1 2004  
GROUP 2800

Friedrich Kueffner  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**  
SEP 2 1 2004  
GROUP 2800

This is in response to the appeal brief filed

May 07, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because it does not address all of the claims. For purposes of this appeal claims 1, 2 and 5 stand or fall together. Claim 3 stands alone. Claim 4 stands alone.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

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6,332,907	Brungs	12-2001
4,099,961	Patten	07-1978
3,873,392	Niebylski et al.	03-1975
5,607,181	Richardson et al.	03-1997
3,889,353	Provi	06-1975

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

A) Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goss in view of Patten.

Goss discloses in Fig. 2 a spirit level comprising a bubble level (vial) 10, a bubble 46, a recess and a housing (level body) 54.

Goss does not explicitly disclose a foamed metal material to make the level body.

Patten teaches how to make a foam metal material and states that articles made of this material are light weighted, have high damping coefficient (durable), and high stiffness-to-density ratio, therefore a material of a predetermined density can be made.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the level/ article, disclosed by Goss, of a foamed metal, as taught by Patten, so as to have a durable light weight material and to provide a user with a light weight level, in order to allow the user to easily hold it and set it to the surface of interest during the use.

B) Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goss in view of Brungs.

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Goss discloses in Fig. 2 a spirit level comprising a bubble level (vial) 10, a bubble 46, a recess and a housing (level body) 54.

Goss does not explicitly disclose a foam metal/ aluminum to make the level body.

Brungs teaches how to make a foam (foamed) aluminum matrix and states that articles made of this material have low/ light weight.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the level/ article, disclosed by Goss, of a foamed aluminum, as taught by Brungs, so as to have a durable light weight material, so as to provide a user with a light weight level, in order to allow the user to easily hold it and set it to the surface of interest during the use.

C) Claims 1-3, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goss in view of Niebylski.

Goss discloses in Fig. 2 a spirit level comprising a bubble level (vial) 10, a bubble 46, a recess and a housing (level body) 54.

Goss does not explicitly disclose a coated foamed aluminum material to make the level body.

Niebylski suggests making a coated foam (foamed) aluminum article. Niebylski states that this material is durable (can withstand high impact energy).

For claim 3: the article can be coated with a plastic material. It is inherent, that the plastic material has higher density (hardly porous) than the density of a foamed material.

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For claim 5: the article can be coated (forming skin) by adhesion of a metal foil. It is inherent, that the metal foil has higher density/ less porosity than the foamed metal material.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the level/ article, disclosed by Goss, of a coated foamed aluminum, as taught by Niebyski, so as to have a durable light weight level protected by a less porous (dense) material from possible contamination, in order to allow the user to easily hold the level and use it a harsh environment.

D) Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goss in view of Richardson.

Goss discloses in Fig. 2 a spirit level comprising a bubble level (vial) 10, a bubble 46, a recess and a housing (level body) 54.

Goss does not explicitly disclose a synthetic non/ less porous coating, as stated in claim 3.

Richardson teaches that a porous (foamed) material structure (col. 7, lines 8-9) can be covered with a non-porous impermeable plastic/ synthetic material (col. 5, lines 46-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the level/ article, disclosed by Goss, of a synthetic coated foamed aluminum, as taught by Richardson, so as to have a light weighted, durable level less susceptible to the harsh environment with the porous structure

protected inside from possible contamination and moisture, in order to maintain accuracy and longevity of the device.

E) Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goss and Patten as applied to claim 1 above, and further in view of Provi.

Goss and Patten disclose the device as stated above.

They do not disclose recesses (plurality of recesses) in the level body.

Provi discloses in Fig. 1 two recesses for vials (bubbles) 48.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Goss and Patten, so as to have two (plurality) recesses for bubbles, as taught by Provi, in order to provide the user with a plurality of bubbles, and thus, more accurate level indication.

**(11) Response to Argument**

With respect to claim 1: Applicant states that there is no discussion in Goss concerning the material of the level body. Applicant also states that it would not be obvious to combine Goss and Patten since the Examiner's motivation is to provide a light-weight level. Furthermore, Applicant states that the aluminum foam of Patten would not provide a lighter weight because, as stated in the table presented by Applicant (see attachment), a hollow aluminum level body has a lighter weigh than a foamed aluminum level body. Applicant also states that the hollow aluminum material requires additional working steps. These arguments are not persuasive because Goss teaches in Fig. 2 a solid (not hollow) level body. It is well known from the art (physics) that, if to compare two articles of the same shape (volume), the article made of a porous (foamed) material

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will have a lighter weigh then the article made of the same but not porous (solid) material.

Applicant states that that Goss or Patten does not mention about benefits of the foamed body and that the only way to combine references is by impermissible hindsight. In response to Applicant's argument that the Examiner's conclusion of obviousness is based upon improper (impermissible) hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense, necessarily a reconstruction based upon hindsight reasoning. But so long it takes into account only knowledge which was within the level of ordinary skill at the time the invention was made, it does not include knowledge gleaned only from the Applicant's disclosure, such a reconstruction is proper. In re McLaughlin, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971).

Also, the Examiner recognizes that there should be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one od ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). The references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969. In this case, the motivation is to make a level of a lighter weigh.



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With respect to claims 1-2: Applicant states that the reasoning provided by Applicant with respect to the combination of Goss and Patten applies to the combination of Goss and Brungs. This argument is not persuasive for the reasons stated above.

With respect to claims 1-3 and 5: Applicant states that the Niebylski reference does not suggest a level body of a foamed material, and that the arguments presented previously apply to this rejection. These arguments are not persuasive for the reasons stated above (see combination of Goss and Patten).

With respect to Richardson and Provi (claims 3 and 4): Applicant states that there should be a reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references (Goss and Richardson for claim 3, and Goss, Patten and Provi for claim 4). Applicant states that the Examiner's motivation (reason) to combine is different from the Applicant's motivation, and that the Examiner's motivation is not the objects of the present invention. This argument is not persuasive because the fact that Applicant uses the foamed material to make a level to for a different purpose (different reason) does not alter the conclusion that the use in the prior art device would be *prima facie* obvious from the purpose disclosed in the reference. In re Lintner, 173 USPQ 560. For the above reasons, it is believed that the rejections should be sustained.

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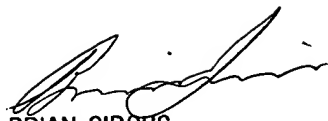
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**GAIL VERBITSKY**  
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Respectfully submitted,

September 18, 2004

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